The Euler Commission of the Swiss Society of Naturalists issued to its sub-scribers, in December, 1920, a statement[1] including the following:

"It has been possible, in spite of all difficulties to prepare five volumes of the Euler edition during the past years. Being convinced however that to many subscribers at the present time it would be a great hardship to receive such a number of volumes at once, the Euler Commission permits itself to make a present of four of these volumes and to ask for the subscription price to the fifth volume only. This applies to all subscribers, not only to private persons but also to the academies and other learned societies, as well as to the libraries.

"Pray do not conclude from this action that the financial position of the Euler undertaking is brilliant. Altogether otherwise, we look to the future with grave misgivings. Not only are the costs of composition increased more than ten fold over those before the war, but we meet also earlier unsuspected difficulties on account of the low value of money in many states. A continua-tion of the undertaking can therefore only be possible if all of our subscribers remain faithful to us and if we are successful in finding yet others.

"We earnestly beg you therefore, to continue to retain your highly prized good will towards the great Swiss work of the Euler Edition and to help us to bring to a happy conclusion the under-taking which has been commenced."

ARTICLES IN CURRENT PERIODICALS.

AMERICAN JOURNAL OF MATHEMATICS, volume 43, no. 1, January (published March), 1921: "Multiple binary forms with the closure property" by A. B. Coble, 1–19; "Einstein's, theory of gravitation: Determination of the field of light signals" by E. Kasner, 20–28; "Note on Einstein's equation of an orbit" by F. Morley, 29–32; "A one-to-one representation of geodesics on a surface of negative curvature" by H. M. Morse, 33–51; "Conjugate systems with indeter-minate axis curves" by E. P. Lane, 52–68.

ANNALS OF MATHEMATICS, second series, volume 22, no. 3, March, 1921: "The asymptotic expansion of the Sturm-Liouville functions" by F. H. Murray, 145–156; "On the conformal mapping of a region into a part of itself" by J. F. Ritt, 157–160; "Conjugate nets R and their transformations" by L. P. Eisenhart, 161–181; "The applications of modern theories of integra-tion to the solution of differential equations" by T. C. Fry, 182–211.

EDUCATIONAL ADMINISTRATION AND SUPERVISION, volume 7, no. 2, Feburary, 1921: 'Subject matter courses in mathematics for the professional preparation of Junior High School teachers" by P. M. Symonds, 61–76.

L'ENSEIGNEMENT MATHÉMATIQUE, volume 21, nos. 3–4 (published December, 1920): "Sur un théorème de cinématique" by C. Cailler, 163–169; "Généralisation des coordonnés polaires. Applications" by E. Jablonski, 170–175; "Sur les systèmes de nombres bicomplexes" by L.-G. Du Pasquier, 175–183; "Développement d'une puissance quelconque, entière et positive, de cos x ou de sin x en fonction linéaire des cos et sin de multiples de x" by E. Barbette, 184–187; "Analyse indéterminée du p^{me} degré sur les sommes de puissances égales des nombres" by E. Barbette, 188–191; "Congrès international des mathématiciens. Strasbourg, 22–28 septembre 1920," 192–209; "Les travaux de la Section de Mathématiques et d'Astronomie de l'Association française pour l'Avancement des Sciences," 209–215; "Société mathématique suisse," 215–229; "Chronique," 229–231; "Notes et documents," 232–236; "Bibliographie," 236–243; "Bulletin bibliographique," 243–250.

GRINNELL REVIEW, Grinnell College, volume 16, March, 1921: "Vindicating Euclid and Newton" [review of Girolamo Saccheri's Euclides Vindicatus, translated by G. B. Halsted (Chicago, 1920) and of F. Cajori's A History of the Conceptions of Limits and Fluxions in Great Britain from Newton to Woodhouse (Chicago, 1919)] by R. B. McClenon, 379.

LITERARY REVIEW, published by New York Evening Post, volume 1, January 15, 1921: "The rudeness of poets" by Christopher Morley, 7 [First paragraph: "The poet who has not learned how to be rude has not learned his first duty to himself. By 'poet' I mean, of course, any imaginative creator—novelist, mathematician, editor, or a man like Herbert Hoover. And by 'rude' I mean the strict and definite limitation which, sooner or later, he must impose upon his sociable instincts. He must refuse to fritter away priceless time and energy in the random

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[1] *Jahresbericht der deutschen Mathematiker-Vereinigung*, 1921, pp. *52–53*.

genialities of the world.   Friendly, well-meaning, and fumbling hands will stretch out to bind the poet's heart in the maddening packthread of Lilliput.   It will always be so.   Life, for most, is so empty of consecrated purpose, so full of palaver, that they cannot understand the trouble of one who carries a flame in his heart, and whose salvation depends on his strength to nourish that flare unsuffocated by crowding and scrutiny."]; "Science histories—*History of the Theory of Numbers*. Vol. I: Divisibility and primality; Vol. II: Diophantine analysis.   By L. E. Dickson. Carnegie Institution of Washington" by R. D. Carmichael, p. 9 [Quotations: "There is in many quarters a growing realization of the importance of the history of science, not only to the progress of science itself but also to the general advancement of civilization.   It is certain that there is no better way to foster interest in the search for and discovery of truth than by a widespread and accurate knowledge of the way in which it has been ascertained in times past and has yielded unexpected values of essential importance.   Again, it is certain that there is no greater incentive and support to the arduous duties of research than a clear conception of the way in which other thinkers have met and overcome the difficulties hindering earlier progress. . . . Whatever may be our judgment as to the ultimate relative importance of the various ends to be served by a history of science, we must recognize that the purposes of general culture cannot be met until we have first brought together the detailed facts in elaborate summaries prepared for the specialist. At the present time we do not have an adequate literature in any single body of science for serving any one of the four fundamental ends of scientific history," namely, "to enrich the general culture and intellectual life of cultivated people, to help the progress of science, and hence of human betterment, by a more widespread appreciation of its problems and the services rendered by it, to enable a scientific worker quickly to orient himself in a chapter of a science so as to proceed most readily to its detailed mastery, to enable a scientific worker to ascertain with completeness what has already been attained in a given subject."]

NATURE, volume 106, January 27, 1921: "The space-time hypothesis before Minkowski" by E. H. Synge, 693 [First two paragraphs: "It is, perhaps, not generally realized that the theory of space and time, to which Minkowski was led on experimental grounds, had been formulated on general principles sixty-five years previously by Hamilton, the Irish mathematician.   The point is, however, of interest, not merely as a question of priority, but for the insight it affords into the philosophic basis of the theory, as well as for the useful mathematical methods it suggests.

"It is curious, therefore, that there should be a lack of recognition that the world of Minkowski is in all points identical with the system of quaternions of Hamilton, and that the latter mathematician specifically regarded this system as a four-dimensional expression of space and time, in which space bears to time the relation which $\sqrt{-1}$ bears to unity, time being the scalar part of the quaternion."]

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE U. S. A., volume 6, no. 11, November, 1920: "Seminvariants of a general system of linear homogeneous differential equations" by E. B. Stouffer, 645–648; "Some new methods in interior ballistics" by A. G. Webster, 648–659; "The permanent gravitational field in the Einstein theory" by L. P. Eisenhart, 678–682; "A simplified method for the statistical interpretation of experimental data" by G. A. Linhart, 682–684.

REVUE DE L'UNIVERSITÉ DE BRUXELLES, Bruxelles, no. 4, January, 1921: "Les mathématiques dans la biologie (La coquille du nautile)" by D'A. W. Thompson, 1–19 [Lecture delivered at the university, November 26, 1920, by the distinguished professor at the University of St. Andrews (cf. *1918*, 189, 192, 238).   Last three paragraphs: "On a appelé la mathématique la servante des sciences physiques, mais elle est aussi leur reine.   Par le nombre, l'ordre et la position, elle nous met sur la voie de la connaissance exacte, la voie de la vérité scientifique; ces trois termes, le nombre, l'ordre et la position, nous fournissent les premières grandes lignes d'un croquis de l'univers.   Par le compas et par l'équerre, par le cercle et le carré, on nous fait mieux comprendre, comme dit le vieux charpentier dans le poème de Verhaeren: 'Les lois indubitables et fécondes, qui sont la règle et la clarté du monde.'

"Les mathématiques ne sont pas seulement une science avec ses lois, elles nous fornissent une langue—et on a dit que c'est la seule langue que le physicien puisse parler.   Et un grand mathématicien écossais, qui étudia le rayon de miel il y a près de deux siècles, en a tiré la leçon que la perfection de la beauté mathématique est telle, que tout ce qui est le plus beau et le plus régulier est en même temps le plus utile et le plus excellent.

"Hier soir, sur un rayon de la bibliothèque de M. Paul Héger, j'ai mis la main sur un des ouvrages d'Henri Poincaré,—et comme vous le savez bien, même après avoir maintes fois lu ses

écrits, on y trouve toujours quelque chose de frappant et de nouveau. A la première page que j'ai ouverte, il compare la réalité objective avec l'harmonie que l'intelligence humaine croit découvrir dans la nature; et en dernière analyse il arrive à la conclusion que cette harmonie, qui s'exprime par les lois mathématiques, est la seule réalité objective, la seule vérité que nous puissons atteindre. Et en ajoutant que l'harmonie universelle du monde est la source de toute beauté, Henri Poincaré, mathématicien, arrive à la même conclusion laquelle Henri Fabre, naturaliste, est parvenu—c'est-à-dire que dans le Nombre on trouve *le pourquoi et le comment des choses*, et que l'on s'imagine y voir *la clef de voûte de l'Univers.*"]

REVUE GÉNÉRALÉ DES SCIENCES, volume 32, January 15, 1921: "Electricité et géométrie, après les théories récentes" by L. Bloch, 5–11.

REVUE SCIENTIFIQUE, volume 59, January 22, 1921: "Sir Norman Lockyer: la découverte de l'hélium et la température des étoiles" by H. Deslandres, 51.

SCIENCE, new series, volume 53, February 18, 1921: "A brief historical consideration of the metric system" by L. C. Karpinski, 156–157; "The history of science and the American Association for the Advancement of Science" by F. Cajori, 163–164 [Last paragraph: "In the judgment of the present writer, the dignified and logical procedure for those interested in the History of Science is, therefore, to withdraw altogether from organized historical work in connection with the American Association for the Advancement of Science until such time when the council and general session will be ready to welcome them into the Association as a separate Section."]—March 4: "Human nature as a repeating factor: that thrice told tale" by W. W. Campbell, 211–212 [First sentence: "The following comments on Professor Wood's 'Thrice told tale,' *Science*, January 14, 1921, are based upon my long experience in showing celestial objects through a great telescope to tens of thousands of Saturday night visitors, and in explaining photographs of star clusters, the milky way, spiral nebulae, etc. to thousands of others."]; "Galileo and Wood" by A. G. Webster, 212-213—March 11: "Musical notation" by R. P. Baker, 235–236 [Letter; first three sentences: "While musical notation is not a matter of great scientific interest, reform presumably is. The desirability of the changes advocated by Professors Huntington and Hall [*1921*, 35, 225] may be admitted. This leaves the space available for briefly discussing the cost."]; Review by L. C. Karpinski of A. Mieli's *Gli Scienziati Italiani* (Rome, 1921), 237–238 [cf. *1921*, 173]; "The Einstein solar field and space of six dimensions" by E. Kasner, 238–239.

TEXAS MATHEMATICS TEACHERS' BULLETIN, volume 6, no. 2, February 10, 1921: "The National Committee on Mathematical Requirements" by E. R. Hedrick, 7–15; "Quantity or quality" by Mary Campbell, 16–17; "The slide rule" by A. E. Cooper, 18–26 [A photograph of a ten-inch Keuffel & Esser slide rule is on a fly-leaf. This may be cut out and pasted on pieces of thin wood.]; "Einstein's relativity and gravitation theories" by P. M. Batchelder, 27–34; "Brown Mathematical Prizes for freshmen" by H. J. Ettlinger, 35–36; "Some elementary principles of Non-Euclidean geometry" by Ethel Burch, 37–44; "Why study mathematics?" by Arnold Dresden, 45–54 [Reprinted from *School and Society*; see this MONTHLY, *1921*, 83]; "A mathematician in love" from *Boston Transcript*, 55.

ZEITSCHRIFT FUR MATHEMATISCHEN UND NATURWISSENSCHAFTLICHEN UNTERRICHT, volume 51, nos. 11–12, published December 1, 1920: "Zum Mathematikunterrichte am deutschen Gymnasium" by A. Weise, 257–262; "Die Schwingungsformel der oszillatorischen Entladung im Unterricht" by K. Hahn, 262–264; "Die Schwingungsdauer der oszillierenden Entladung im Unterricht" by W. Hillers, 264–273; "Kleine Mitteilungen," 273–276; "Aufgaben-Repertorium," 276–280; "Bücherbesprechungen" and "Zeitschriftenschau," 284–288.

UNDERGRADUATE MATHEMATICS CLUBS.

All reports of club activities should be sent to E. L. DODD, 3012 West Ave., Austin, Texas.

CLUB ACTIVITIES.

THE MATHEMATICS CLUB OF CONNECTICUT COLLEGE, New London, Conn. [*1918*, 270, 460; *1920*, 28.]

The general plan of the Club is to have at each meeting two papers. In 1919–20 the first paper was biographical and the second on any topic of general